



## Abstract

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**PI Title:** ASSOCIATE PROFESSOR

**Project Title:** A+ Asthma Rural Partnership

**Abstract:** *Environmental, socioeconomic, psychosocial, and familial factors in rural communities predispose children to chronic health conditions, including asthma. Asthma is the most common chronic disease of childhood, affecting 7.4 percent of children aged 5-14 years in the United States. It has a significant impact on the quality of life of these children. There is a lack of information addressing the unique needs of asthma education for rural school children. The objective of this study is to evaluate the effectiveness of a school-based asthma educational intervention on the quality of life of rural elementary school children with asthma. The specific aims are to evaluate the effectiveness of the intervention on: Aim 1: quality of life, health care utilization, asthma knowledge, self-efficacy, school absenteeism, and use of asthma medications of children in grades 1-5; Aim 2: quality of life, asthma knowledge, self-efficacy, and asthma management practices of parents/caregivers; and Aim 3: asthma knowledge, self-efficacy, asthma management, and frequency of asthma communications of school health personnel (SHP). The primary study outcome is children's quality of life. A total of 294 children in grades 1-5 with asthma from six rural counties on the Maryland Eastern Shore will be enrolled. These counties will be divided into two county groups, a standard control and an intervention, matched for total student enrollment, gender, and ethnicity. Children and parents/caregivers in the standard control group (n=147) will receive printed asthma educational/materials. SHP will receive printed and video asthma management materials and peak flow meters (PFMs). Children and parents/caregivers in the intervention group (n=147) will receive the same materials as the standard control group. In addition, children in the intervention group will receive a 4-hour A plus Asthma Children's Workshop given by SHP, My Asthma Coloring Book, bimonthly newsletters, peak flow*

*meters, and spacer devices. Parents/caregivers will receive a one-hour workshop and a specially designed packet of educational materials about rural related asthma management. Both children and parents/caregivers will receive the services of the A+ Asthma Rural Community health Workers ((CHWs). SHP in the intervention group will receive a six-hour asthma rural training, and services of the A plus Asthma Rural Nurse Consultants (RNCs) who have received special training to instruct SHP to manage childhood asthma and CHWs. A plus Asthma RNCs will assist with children's and parents'/caregivers' workshops and CHWs will make home visits to parents who missed workshops or to children with frequent school absences. Differences in outcome measures described in the specific aims will be evaluated between baseline and the end of the program during one school year using generalized linear modeling and extensions of analysis of covariance. The major hypothesis is that children in the intervention group will show significant improvements in their quality of life compared to those in the standard control group. The findings of this study will be important to clinicians, researchers, and health policy makers.*

***Thesaurus Terms:***

*asthma, child (0-11), education evaluation /planning, elementary school, health education, nursing intervention, patient care management, quality of life  
absenteeism, community, health care service utilization, socioenvironment, workshop  
behavioral /social science research tag, human subject, outcomes research, patient  
oriented research*

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